# PERFORMANCE TECHNOLOGY CENTER
## PROP WASH

**prop·wash (präp'-wôsh)** *n.* the surge or eddy of water from a propeller. Never an end in itself, prop-wash is essential for ships and airplanes to move and do their work for the American people. PTC provides "prop wash" in many forms - all of which help human performers do their job.

# New SORTS Decision Aid (PW002A)

## Background:

Status of Resources and Training System (SORTS) is the principal operational reporting system used by the Armed Forces, the Chairman of the Joint Chiefs of Staff, and the regional Commanders in Chief.  Always important, accurate SORTS data have become even more critical in light of our nation's war on terror.  Currently, WHEC's, WMEC's, WAGB's, 110 WPB's and PSU's report in SORTS.

## Problem Statement:

G-OPF told Performance Technology Center (PTC) staff that units were reporting inaccurate SORTS results, and that there were inconsistencies in the information reported between similar units. They did not, however, provide any specific data on the percentages of error types or frequency with which errors occurred.

## Analysis:  To further explore the problem statement, we reviewed the paper-based decision aid and the existing job aid using the paradigm of performance that flows from a "systems" view of human performance.  The analysis efforts led to the following hypotheses for causes of errors: (1) length of the paper-based decision aid; (2) need to perform math computations manually; (3) decision aid's lack of capability for archiving information; (4) units having to research various manuals to obtain required information; and (5) errors in interpretation of data. None of these hypotheses suggested a lack of skill or knowledge, the traditional realm of training.

## Solution:

To improve accuracy and time on task, we designed an electronic decision aid using "yes/no" variables, radio buttons, and behind-the-scenes math functions and comparisons. The resulting SORTS Decision Aid runs on software already part of the standard image (Microsoft Excel) and asks a series of questions about the unit, resulting in relatively objective readiness ratings.  The product also includes a "maintenance" job aid that provides just-in-time performance support to personnel responsible for making updates to the decision aid. These two tools include built-in instructions and content specific help.  They will be distributed on a single floppy disk upon release of an updated

COMDTINST.

**Performance Improvement**:

We verified the hypotheses developed during analysis by conducting testing that compared performance using both the paper-based and electronic job aids. 10 people on 5 different cutters tested the old and new decision aids, using efficiency (time to complete) and accuracy (number of errors) measures. Results indicate the new tool cuts valuable user preparation time by 50% and increases accuracy by 300%.

The cost of developing the decision aid for 8 cutter classes and Port Security Units was about $10k.

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